

administrator under each plan, a calendar quarter's high speed line revenues allocated to Network B under the plan as soon as the calculation becomes available for that quarter.

B. Determination of High Speed Line Access Fees

Both plans currently require participants: (a) to set high speed line access fees at levels that allow the participants to recover the operating expenses that the Processor incurs in making the high speed line available, and (b) to set indirect high speed line access fees at a level that equals one-half of the direct access fees. The proposed amendments would eliminate these two requirements and thereby alter the manner in which participants determine high speed line access fees.³ The participants, however, are not proposing to amend the actual fees at this time.

II. Solicitation of Comments

Rule 11Aa3-2(c)(2) under the Act provides that the proposed amendment shall be approved by the Commission with such changes or subject to such conditions as the Commission may deem necessary or appropriate in the public interest, for the protection of investors and maintenance of fair and orderly markets, to remove impediments to and perfect the mechanisms of a National Market System, or otherwise in furtherance of the purposes of the Act within 120 days of the date of publication of notice of filing, or within such longer period as the Commission may designate up to 180 days of such date pursuant to Rule 11Aa3-2(c)(2).

Interested persons are invited to submit written data, views, and arguments concerning the foregoing. Persons making written submissions should file six copies thereof with the Secretary, Securities and Exchange Commission, 450 Fifth Street, N.W., Washington, D.C. 20549. Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for inspection and copying in the Commission's Public Reference Room. Copies of such filing will also be

available for inspection and copying at the principal office of the CTA/CQ. All submissions should refer to the file number in the caption above and should be submitted by April 24, 1995.

For the Commission by the Division of Market Regulation, pursuant to delegated authority.⁴

Margaret H. McFarland,

Deputy Secretary.

[FR Doc. 95-8091 Filed 3-31-95; 8:45 am]

BILLING CODE 8010-01-M

SMALL BUSINESS ADMINISTRATION

Buffalo District Advisory Council Meeting; Public Meeting

The U.S. Small Business Administration Buffalo District Advisory Council will hold a public meeting on Thursday, April 27, 1995 at 2:00 p.m. at the Key Bank of New York, Key Center at Fountain Plaza, 16th floor conference room, Buffalo, New York to discuss matters as may be presented by members, staff of the U.S. Small Business Administration, or others present.

For further information, write or call Mr. Franklin J. Sciortino, District Director, U.S. Small Business Administration, 111 West Huron Street, Room 1311, Buffalo, New York 14201, (716) 846-4301.

Dated: March 27, 1995.

Dorothy A. Overall,

Director, Office of Advisory Council.

[FR Doc. 95-8105 Filed 3-31-95; 8:45 am]

BILLING CODE 8025-01-M

DEPARTMENT OF TRANSPORTATION

Coast Guard

[CGD01-95-032]

Marine Inspection Office New York/ Captain of the Port New York Industry Day

AGENCY: Coast Guard DOT.

ACTION: Notice of meeting.

SUMMARY: Coast Guard Marine Inspection Office New York and Captain of the Port, New York are sponsoring an Industry Day to exchange information with the maritime community. The meeting will be open to the public.

DATES: The meeting will be held on April 11, 1995.

ADDRESSES: The meeting will be held at the State University of New York

Maritime College at Fort Schuyler, New York.

FOR FURTHER INFORMATION CONTACT:

LCDR James Candee, USCG Marine Inspection Office, Battery Park Building, New York, New York, 10004, telephone (212) 668-7850, facsimile (212) 668-7863.

SUPPLEMENTARY INFORMATION:

Rear Admiral John L. Linnon, Commander, First Coast Guard District and Rear Admiral James C. Card, Chief, Office of Marine Safety, Security and Environmental Protection will be featured speakers. Topics to be addressed include President Clinton's "Presidential Regulation Reinvention Initiative," Port State Control, and the Alternative Compliance and Prevention through People Initiatives. Feedback received in the past from small passenger vessel owners and operators indicated a need to provide a separate Industry Day addressing their concerns. That was accomplished during Marine Inspection Office New York's small passenger vessel public forums. While small passenger vessel issues will not be specifically addressed during the April 11th meeting, small passenger vessel operators are still encouraged to attend. Attendance is open to the public. Advance registration is requested. Registration and agendas may be obtained by contacting the person listed in **FOR FURTHER INFORMATION CONTACT**.

Dated: March 22, 1995.

J.L. Linnon,

Rear Admiral, U.S. Coast Guard, Commander, First Coast Guard District.

[FR Doc. 95-8128 Filed 3-31-95; 8:45 am]

BILLING CODE 4910-14-M

National Highway Traffic Safety Administration

Automotive Fuel Economy Program Report to Congress

The attached document, Automotive Fuel Economy Program, Nineteenth Annual Report to the Congress, was prepared pursuant to 49 U.S.C. 32916 which requires in pertinent part that "the Secretary shall submit to each House of Congress, and publish in the **Federal Register**, a review of average fuel economy standards under this part."

³The participants' reasons for requesting this amendment is that the above requirements were established over twenty years ago. Today's digital data feed and other technologies make high speed lines cheaper and easier to access.

⁴ 17 CFR 200.30-3(a)(27) (1989).

Issued: March 20, 1995.

Barry Felrice,

*Associate Administrator for Safety
Performance Standards.*

Automotive Fuel Economy Program

Nineteenth Annual Report to Congress

Calendar Year 1994

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Section I: Introduction

The Nineteenth Annual Report to Congress on Automotive Fuel Economy Program summarizes the activities of the National Highway Traffic Safety Administration (NHTSA) during 1994, in accordance with 49 U.S.C. 32916 *et seq.*, which requires the submission of a report each year. Included in this report are sections summarizing rulemaking activities during 1994 and a discussion of the use of advanced automotive technology by the industry as required by section 305, Title III, of the Department of Energy Act of 1978 (Pub. L. 95-238).

The Secretary of Transportation is required to administer a program for regulating the fuel economy of new passenger cars and light trucks in the United States market. The authority to administer the program was delegated by the Secretary to the Administrator of NHTSA, 49 CFR 1.50(f).

NHTSA's responsibilities in the fuel economy area include:

(1) Establishing and amending average fuel economy standards for manufacturers of passenger cars and light trucks, as necessary;

(2) Promulgating regulations concerning procedures, definitions, and reports necessary to support the fuel economy standards;

(3) Considering petitions for exemption from established fuel economy standards by low volume manufacturers (those producing fewer than 10,000 passenger cars annually worldwide) and establishing alternative standards for them;

(4) Preparing reports to Congress annually on the fuel economy program;

(5) Enforcing fuel economy standards and regulations; and

(6) Responding to petitions concerning domestic production by foreign manufacturers and other matters.

Passenger car fuel economy standards were established by Congress for Model Year (MY) 1985 and thereafter at a level of 27.5 miles per gallon (mpg). NHTSA is authorized to amend the standard above or below that level. Standards for light trucks were established by NHTSA for MYs 1979 through 1997. NHTSA set a combined standard of 20.7 mpg for light truck fuel economy standard for MYs 1996 and 1997. All current standards are listed in Table I-1.

TABLE I-1.—FUEL ECONOMY STANDARDS FOR PASSENGER CARS AND LIGHT TRUCKS MODEL YEARS 1978 THROUGH 1997 (IN MPG)

Model year	Passenger cars	Light trucks ¹		
		Two-wheel drive	Four-wheel drive	Com- bined ^{2,3}
1978	⁴ 18.0			
1979	⁴ 19.0	17.2	15.8	
1980	⁴ 20.0	16.0	14.0	⁵
1981	22.0	⁶ 16.7	15.0	⁵
1982	24.0	18.0	16.0	17.5
1983	26.0	19.5	17.5	19.0
1984	27.0	20.3	18.5	20.0
1985	⁴ 27.5	⁷ 19.7	⁷ 18.9	⁷ 19.5
1986	⁸ 26.0	20.5	19.5	20.0
1987	⁹ 26.0	21.0	19.5	20.5
1988	⁹ 26.0	21.0	19.5	20.5
1989	¹⁰ 26.5	21.5	19.0	20.5
1990	⁴ 27.5	20.5	19.0	20.0
1991	⁴ 27.5	20.7	19.1	20.2
1992	⁴ 27.5			20.2
1993	⁴ 27.5			20.4
1994	⁴ 27.5			20.5
1995	⁴ 27.5			20.6
1996	⁴ 27.5			20.7
1997	⁴ 27.5			20.7

¹ Standards for MY 1979 light trucks were established for vehicles with a gross vehicle weight rating (GVWR) of 6,000 pounds or less. Standards for MY 1980 and beyond are for light trucks with a GVWR of 8,500 pounds or less.

² For MY 1979, light truck manufacturers could comply separately with standards for four-wheel drive, general utility vehicles and all other light trucks, or combine their trucks into a single fleet and comply with the 17.2 mpg standard.

³ For MYs 1982-1991, manufacturers could comply with the two-wheel and four-wheel drive standards or could combine all light trucks and comply with the combined standard.

⁴ Established by Congress in Title V of the Act.

⁵ A manufacturer whose light truck fleet was powered exclusively by basic engines which were not also used in passenger cars could meet standards of 14 mpg and 14.5 mpg in MYs 1980 and 1981, respectively.

⁶ Revised in June 1979 from 18.0 mpg.

⁷ Revised in October 1984 from 21.6 mpg for two-wheel drive, 19.0 mpg for four-wheel drive, and 21.0 mpg for combined.

⁸ Revised in October 1985 from 27.5 mpg.

⁹ Revised in October 1986 from 27.5 mpg.

¹⁰ Revised in September 1988 from 27.5 mpg.

Section II: Fuel Economy Improvement by Manufacturers

The fuel economy achievements for domestic and foreign manufacturers in MY 1993 were updated to include final Environmental Protection Agency (EPA) calculations, where available, since the publication of the Eighteenth Annual Report to the Congress. These fuel economy

achievements and current projected data for MY 1994 are listed in Tables II-1 and II-2.

Overall fleet fuel economy for passenger cars was 28.2 mpg in MY 1994, a decline of 0.2 mpg from the MY 1993 level. For MY 1994, CAFE values decreased below MY 1993 levels for 14 of 22 passenger car manufacturers' fleets. (See Table II-1). These 14 companies accounted for over 44 percent of the total MY 1994 production. Manufacturers continued to introduce new

technologies and more fuel-efficient models, as well as some larger, less fuel-efficient models. For MY 1994, the overall domestic manufacturers' fleet average fuel economy was 27.3 mpg. For MY 1994, Chrysler, Ford, and Mazda domestic passenger car CAFE values fell 1.6 mpg, 0.7 mpg, and 0.6 mpg, respectively, from their 1993 levels, while GM remained at its MY 1993 level. Overall, the domestic manufacturers' combined CAFE declined 0.5 mpg below MY 1993 levels.

TABLE II-1.—PASSENGER CAR FUEL ECONOMY PERFORMANCE BY MANUFACTURER*
[Model Years 1993 and 1994]

Manufacturer	Model year cafe (mpg)	
	1993	1994
Domestic:		
Chrysler	27.8	26.2
Ford	28.3	27.6
GM	27.4	27.4
Mazda	29.7	29.1
Sales weighted average (domestic)	27.8	27.3
Imported:		
BMW	25.2	25.1
Chrysler Imports	31.0	31.3
Fiat	23.9	19.8
Ford Imports	26.7	25.7
GM Imports	30.5	24.6
Honda	32.5	32.5
Hyundai	31.3	32.5
Isuzu	33.0
Kia	31.7	30.8
Mazda	31.0	31.2
Mercedes-Benz	22.9	23.8
Mitsubishi	29.4	28.9
Nissan	29.4	29.7
Porsche	22.5	22.0
Subaru	29.3	28.3
Suzuki	46.4	43.8
Toyota	29.1	29.0
Volvo	25.9	25.7
VW	27.2	28.1
Sales weighted average (imported)	29.6	29.6
Total fleet average	28.4	28.2
Fuel economy standards	27.5	27.5

* Manufacturers or importers of fewer than 1,000 passenger cars annually are not listed.

Note: Some MY 1993 CAFE values differ from those used in the *Eighteenth Annual Report to the Congress* due to the use of final EPA calculations.

In MY 1994, the fleet average fuel economy for imported passenger cars remained at the MY 1993 CAFE level. Import CAFE was 29.6 mpg in MY 1994. Eleven of the 19 imported car manufacturers decreased their CAFE values between MYs 1993 and 1994, including 5 of the 9 Asian importers. Figure II-1 illustrates the changes in total new passenger car fleet CAFE from MY 1978 to MY 1994.

The total light truck fleet CAFE decreased 0.3 mpg below the MY 1993 CAFE level of 20.9 mpg. Figure II-2 illustrates the trends in total fleet CAFE from MY 1979 to MY 1994 for light trucks.

A number of passenger car and a few light truck manufacturers are projected to fail to achieve the levels of the MY 1994 CAFE standards. However, NHTSA is not yet able to determine which of these manufacturers may be liable for civil penalties for

noncompliance. Some MY 1994 CAFE values may change when final figures are provided to NHTSA by EPA, in mid-1995. In addition, several manufacturers are not expected to pay civil penalties because the credits they earned by exceeding the fuel economy standards in earlier years offset later shortfalls. Other manufacturers may file carryback plans to demonstrate that they anticipate earning credits in future model years to offset current deficits.

TABLE II-2.—LIGHT TRUCK FUEL ECONOMY PERFORMANCE BY MANUFACTURER
[Model years 1993 and 1994]

Manufacturer	Model year cafe (mpg)	
	Combined	
	1993	1994
Captive Import:		
Chrysler Imports	24.3
Others:		
Chrysler	21.2	20.5
Ford	20.9	20.8
GM	19.8	19.9
Isuzu	21.8	20.8
Mazda	23.6	21.2
Mitsubishi	21.3	22.0
Nissan	23.7	22.5
PAS	18.5
Land Rover	15.5	16.4
Subaru	29.1	29.6
Suzuki	28.9	28.5
Toyota	22.3	22.0
UMC	18.8	18.5
VW	21.0	21.0
Total fleet average	20.9	20.6
Fuel economy standard	20.4	20.5

Note: Some MY 1993 CAFE values differ from those used in the *Eighteenth Annual Report to the Congress* due to the use of final EPA calculations.

Fleet average fuel economy for all MY 1994 passenger cars combined and for all light trucks combined exceeded the levels of the MY 1994 standards.

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CAFE PERFORMANCE PASSENGER CARS

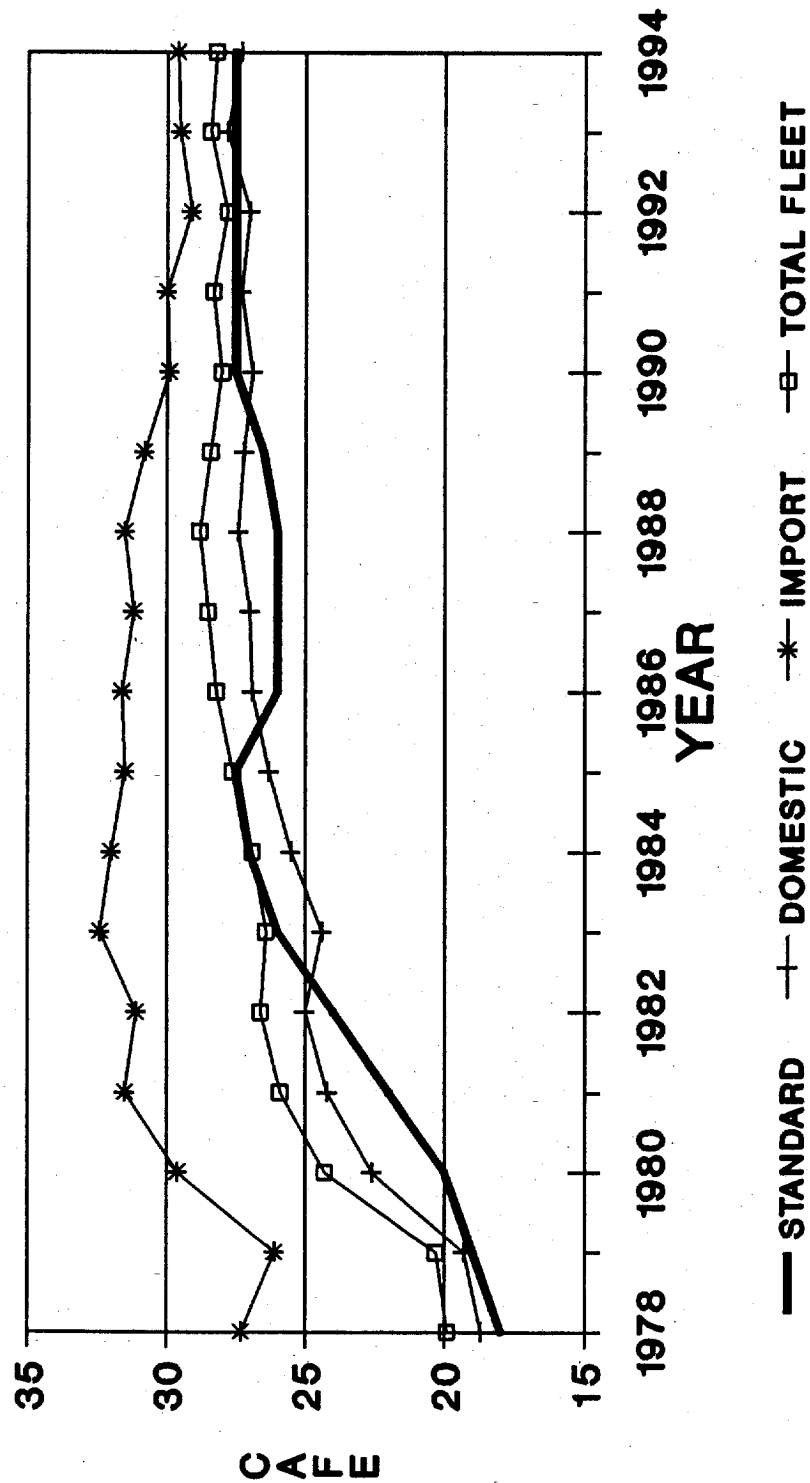


FIGURE II-1

CAFE PERFORMANCE LIGHT TRUCK COMPOSITE

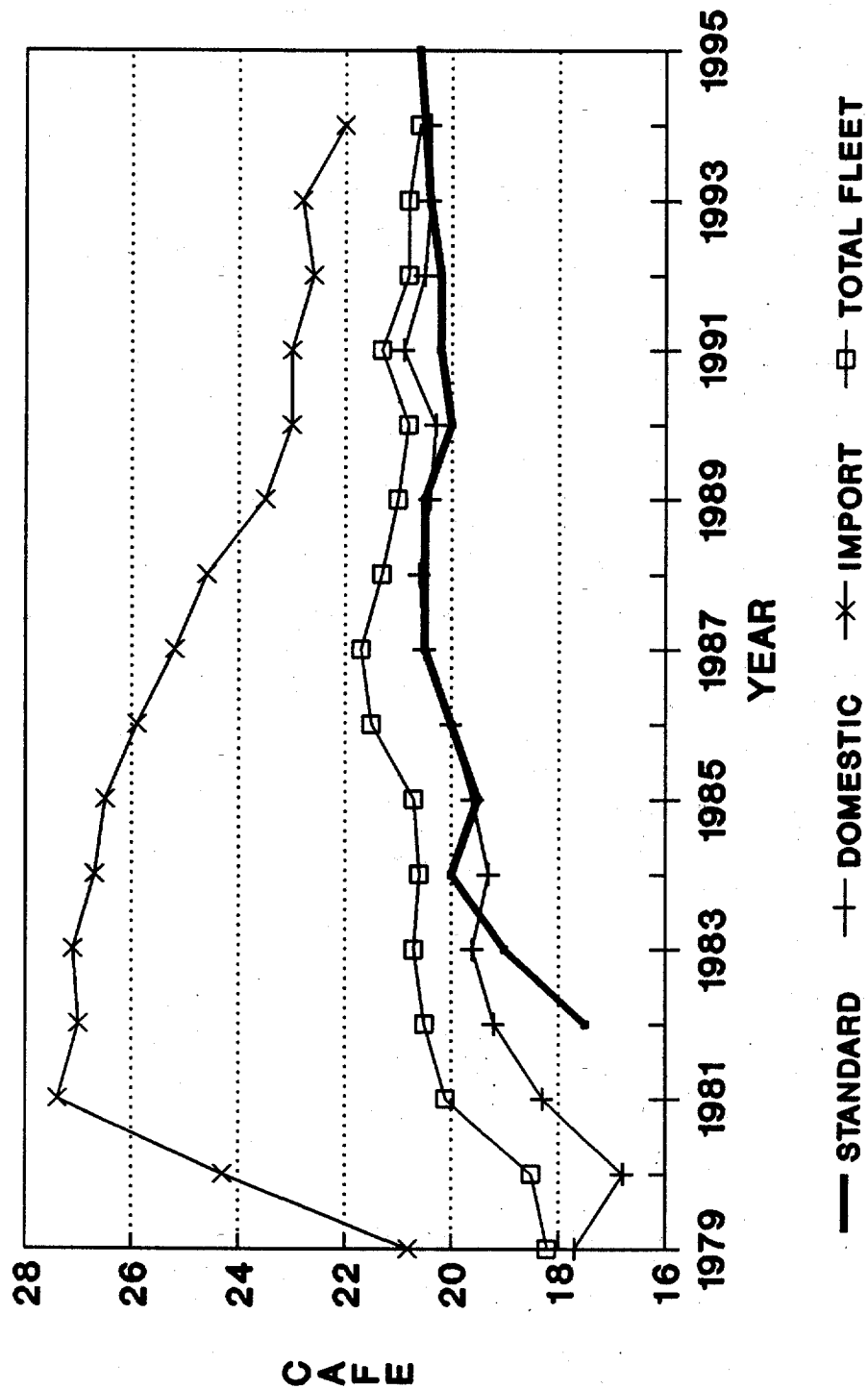


FIGURE II-2

Isuzu terminated sales of its passenger cars in the United States after MY 1993; however, the manufacturer continues to sell its light trucks. Isuzu accumulated substantial CAFE credits during its 13-year marketing span of its passenger cars in the United States, but these vehicles sales reached such a low level that it apparently decided it was economically infeasible for their passenger cars to remain.

The characteristics of the MY 1994 passenger car fleet reflect a continuing trend toward increased consumer demand for higher performance cars. (See Table II-3.) From MY 1993 to MY 1994, horsepower/100 pounds, a measure of vehicle performance, increased from 4.56 to 4.79 for domestic passenger cars. However, it decreased slightly from 4.72 to 4.71 for imported passenger cars. The total fleet average for passenger cars increased from 4.62 in MY 1993 to 4.76 horsepower/100 pounds in MY

1994, the highest level in the 38 years for which the agency has data. Compared to MY 1993, the average curb weight for MY 1994 increased 52 pounds for the domestic fleet and 23 pounds for the imported fleet. The total new passenger car fleet is 41 pounds heavier than it was in MY 1993, primarily because of the larger share held by the domestic fleet. Average engine displacement increased from 184 to 188 cubic inches for domestic passenger cars and 136 to 137 cubic inches for imported passenger cars.

The 0.5 mpg fuel economy reduction for the MY 1994 domestic passenger car fleet may be attributed to increases in performance and average curb weight. Some of the weight increase reflects increased applications of safety features such as airbags, improved side impact protection, and antilock braking systems.

The size class breakdown shows an increased trend towards subcompact,

compact, and large passenger cars and a decrease in two-seater, minicompact, and midsize passenger cars for the overall fleet. The domestic fleet shift is from midsize passenger cars to subcompact, compact, and large passenger cars. The shift of imported cars to compact size is particularly pronounced; compact cars increased to 41.6 percent of the imported fleet in MY 1994 from just 36.6 percent in MY 1993. The imported share of the passenger car market declined slightly in MY 1994. However, for the fifth consecutive year, imports exceeded 40 percent of the new passenger car fleet.

The domestic fleet had a dramatic decrease in share of turbocharged and supercharged engines. Diesel engines declined in share after a small increase in MY 1993. Diesel engines were offered only on certain Mercedes models during MY 1994.

TABLE II-3.—PASSENGER CAR FLEET CHARACTERISTICS FOR MYS 1993 AND 1994

Characteristics	Total fleet		Domestic fleet		Imported fleet	
	1993	1994	1993	1994	1993	1994
Fleet average fuel economy, mpg	28.4	28.2	27.8	27.3	29.6	29.6
Fleet average curb weight, lbs.	2971	3012	3046	3098	2861	2884
Fleet average engine displacement, cu. in.	164	167	184	188	136	137
Fleet average horsepower/weight ratio, hp/100 lbs.	4.62	4.76	4.56	4.79	4.72	4.71
Percent of fleet	100	100	59.4	59.8	40.6	40.2
Segmentation by EPA size class, Percent:						
Two-seater	1.4	1.2	0.5	0.5	2.8	2.1
Minicompact	1.0	0.3	0.0	0.0	2.4	0.7
Subcompact*	23.0	23.4	14.4	17.0	35.4	32.8
Compact*	33.7	36.0	31.7	32.2	36.6	41.6
Mid-size*	29.4	25.6	37.8	31.2	17.2	17.3
Large*	11.5	13.6	15.6	19.1	5.6	5.5
Percent diesel engines	0.04	0.01	0.0	0.0	0.9	0.02
Percent turbo or supercharged engines	1.1	0.9	0.5	0.4	1.9	1.7
Percent fuel injection	100	100	100	100	100	100
Percent front-wheel drive	84.4	83.9	86.0	83.6	82.1	84.4
Percent automatic transmissions	79.9	81.7	87.4	87.8	69.1	72.6
Percent automatic transmissions with lockup clutches	93.1	94.9	93.3	94.8	92.6	95.0
Percent automatic transmissions with four or more forward speeds	77.2	84.7	69.2	79.8	91.9	92.4

* Includes associated station wagons.

Passenger car fleet average characteristics have changed significantly since MY 1978 (the first year of fuel economy standards). After substantial initial weight loss (from MY 1978 to MY 1982, the average passenger car fleet curb weight decreased from 3,349 to 2,808 pounds), the passenger car fleet average curb weight stabilized around 2,800 pounds from MY 1982 to MY 1987, but has risen to approximately 3,000 pounds since then. Table II-4 shows that the MY 1994 passenger car fleet has nearly equal interior volume and

higher performance, but with over 40 percent better fuel economy than the MY 1978 fleet. (See Figure II-3)

The characteristics of the MY 1994 light truck fleet are shown in Table II-5. Since light truck manufacturers are not required to divide their fleets into domestic and import fleets based on the 75-percent domestic content threshold used for passenger car fleets, the domestic and imported fleet characteristics in Table II-5 are estimated, based mainly on manufacturer name. The

agency assumed that all products of foreign-based manufacturers would not meet the domestic content threshold, whether they were assembled in the United States of Canada, or in another country. The exception to this is the assumption that the import-badged products of a domestic manufacturer's assembly plant were "domestic" (Mazda Navajo and pickup and Nissan Quest).

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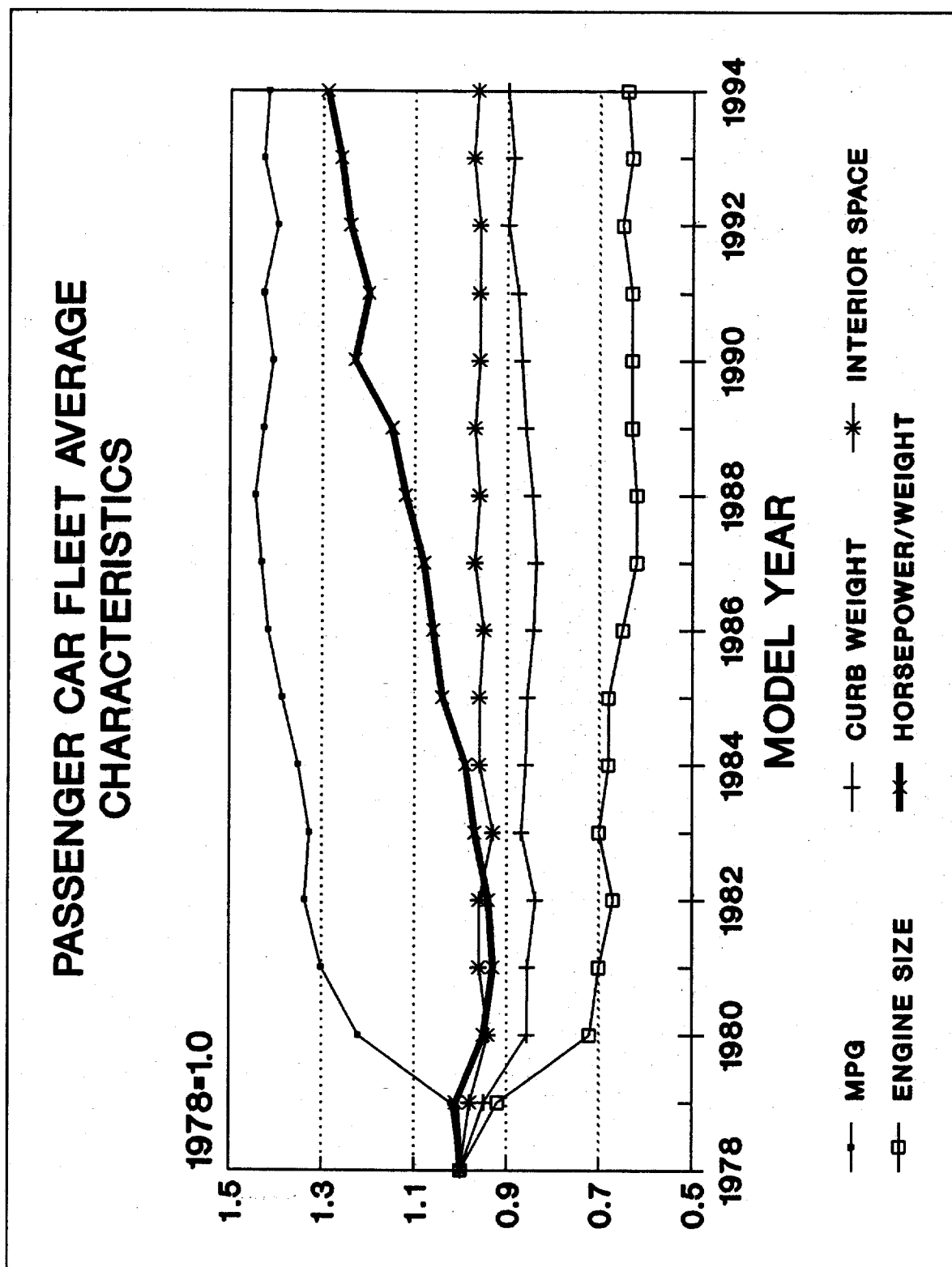


FIGURE II-3

TABLE II-4.—NEW PASSENGER CAR FLEET AVERAGE CHARACTERISTICS
[Model years 1978–1993]

Model year	Fuel economy (mpg)	Curb weight (lb.)	Interior space (cu. ft.)	Engine size (cu. in.)	Horsepower/weight (hp/100 lb.)
1978	19.9	3349	112	260	3.68
1979	20.3	3180	110	238	3.72
1980	24.3	2867	105	187	3.51
1981	25.9	2883	108	182	3.43
1982	26.6	2808	107	173	3.47
1983	26.4	2908	109	182	3.57
1984	26.9	2878	108	178	3.66
1985	27.6	2867	108	177	3.84
1986	28.2	2821	106	169	3.89
1987	28.5	2805	109	162	3.98
1988	28.8	2831	107	161	4.11
1989	28.4	2879	109	163	4.24
1990	28.0	2908	108	163	4.53
1991	28.3	2934	108	164	4.42
1992	27.8	3007	108	169	4.56
1993	28.4	2971	109	164	4.62
1994	28.2	3012	108	167	4.76

TABLE II-5.—LIGHT TRUCK FLEET CHARACTERISTICS FOR MYS 1993 AND 1994

Characteristics	Total fleet		Domestic fleet		Imported fleet	
	1993	1994	1993	1994	1993	1994
Fleet average fuel economy, mpg	20.9	20.6	20.6	20.4	22.7	22.0
Fleet average equivalent test weight, lbs	4,201	4,274	4,284	4,340	3,727	3,832
Fleet average engine displacement, cu. in.	237	243	249	255	167	165
Fleet average horsepower/weight ratio, hp/100 lbs	3.89	3.86	3.97	3.89	3.47	3.65
Percent of fleet	100	100	85.1	87.0	14.9	13.0
Segmentation by type, percent:						
Passenger van:						
Compact	23.6	17.0	25.8	18.6	11.1	6.3
Large	0.3	0.5	0.4	0.6		
Cargo van:						
Compact	1.4	1.5	1.6	1.7		
Large	4.7	4.7	5.6	5.4		
Small pickup*	7.9	6.2	6.6	5.3	15.2	12.2
Large pickup*	34.3	40.0	33.4	40.5	39.8	36.8
Special purpose	27.8	30.0	26.7	27.8	33.9	44.7
Percent diesel engines	0.07	0.30	0.09	0.30		
Percent fuel injection	99.0	99.7	100	100	93.0	97.7
Percent automatic transmissions	76.2	77.3	82.5	82.5	39.9	45.7
Percent automatic transmissions with lockup clutches	98.6	98.3	99.1	98.5	92.3	94.0
Percent automatic transmissions with four forward speeds	90.5	92.1	89.9	91.6	97.1	98.9
Percent 4-wheel drive	33.7	36.1	32.3	34.1	41.2	49.5

* Including cab chassis.

The average test weight of the total light truck fleet increased by 73 pounds over that for MY 1993. Increased popularity of large pickups, special purpose vehicles, heavier, and higher performance trucks contributed to a 0.3 mpg fleet fuel economy decline for MY 1994, offsetting the small increase in the use of fuel injection and automatic transmissions with four forward speeds. Diesel engine usage increased in light truck to 0.30 percent in MY 1994 from 0.07 percent in MY 1993. The imported share of the MY 1994 light truck fleet decreased to 13.0 percent, 1.9 percent lower than MY 1993 and the lowest share since light truck fuel economy standards were established.

During MYs 1980 through 1994, CAFE levels for light trucks in the 0–8,500 pounds gross vehicle weight (GVW) class increased,

beginning at 18.5 mpg in MY 1980 and reaching 21.7 mpg in MY 1987 before dropping to lower values in MY 1988 through MY 1994, as average weight, engine size, and performance increased. During these years, light truck production increased from 1.9 million in MY 1980 to 4.7 million in MY 1994. Light trucks comprised 40 percent of the total light duty vehicle fleet production in MY 1994, more than double its share in MY 1980.

Figure II-4 illustrates that the light duty fleet (passenger cars and light trucks together) average fuel economy steadily increased to MY 1987, but subsequently has been below the MY 1987 level. (See Table II-6). Light truck average fuel economy declined, but the passenger car average fuel economy remained relatively constant for

MYs 1987–1994. Thus, the overall decline illustrates the growing influence of light trucks in the light duty fleet.

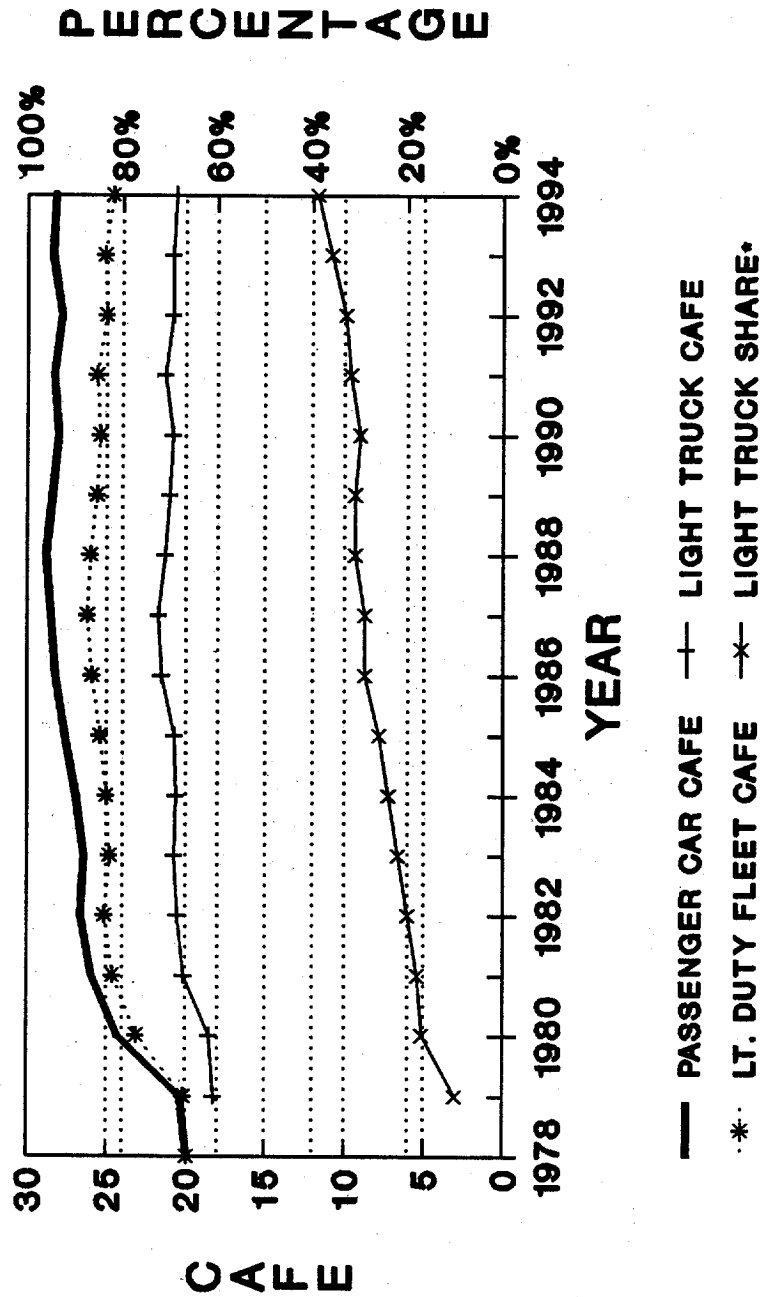
While both passenger car and light truck fleet fuel economies decreased from MY 1993 to MY 1994 by 0.2 mpg and 0.3 mpg, respectively, the total fleet fuel economy for MY 1994 decreased 0.5 mpg over the MY 1993 level (25.1 mpg for MY 1993 and 24.6 mpg for MY 1994). This is attributed to increased sales of light trucks, since the total light truck fleet fuel economy is far less than that of passenger cars. The shift to light trucks for general transportation is an important trend in consumers' preference and has a significant fleet fuel consumption effect.

Domestic and imported passenger car fleet average fuel economies have improved since

MY 1978, although the increase is far more dramatic for the domestic fleet. In MY 1994, the domestic passenger car fleet average fuel economy decreased from the prior year to 27.3 mpg, and imported passenger car fleet average fuel economy remained at 29.6 mpg. Compared to MY 1978, this reflects an increase of 8.6 mpg for domestic cars. For imported cars, the MY 1994 average fuel economy is only 2.3 mpg higher than that of MY 1978.

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CAFE PERFORMANCE TOTAL FLEET



• OF LIGHT DUTY FLEET

FIGURE II-4

TABLE II-6.—DOMESTIC AND IMPORTED PASSENGER CAR AND LIGHT TRUCK FUEL ECONOMY AVERAGES FOR MODEL YEARS 1978–1994
[In MPG]

Model year	Domestic			Imported			Total fleet
	Car	Light truck	Com-bined	Car	Light truck	Com-bined	
1978	18.7			27.3			
1979	19.3	17.7	19.1	26.1	20.8	25.5	20.1
1980	22.6	16.8	21.4	29.6	24.3	28.6	23.1
1981	24.2	18.3	22.9	31.5	27.4	30.7	24.6
1982	25.0	19.2	23.5	31.1	27.0	30.4	25.0
1983	24.4	19.6	23.0	32.4	27.1	31.5	24.8
1984	25.5	19.3	23.6	32.0	26.7	30.6	25.0
1985	26.3	19.6	24.0	31.5	26.5	30.3	25.4
1986	26.9	20.0	24.4	31.6	25.9	29.8	25.9
1987	27.0	20.5	24.6	31.2	25.2	29.6	26.2
1988	27.4	20.6	24.5	31.5	24.6	30.0	26.0
1989	27.2	20.4	24.2	30.8	23.5	29.2	25.6
1990	26.9	20.3	23.9	29.9	23.0	28.5	25.4
1991	27.3	20.9	24.4	30.0	23.0	28.4	25.6
1992	27.0	20.5	23.8	29.1	22.6	27.8	25.0
1993	27.8	20.6	24.2	29.6	22.7	28.0	25.1
1994	27.3	20.4	23.5	29.6	22.0	27.8	24.6

Since MY 1980, the total light truck fleet average fuel economy and the average for domestic manufacturers have improved. However, the imported light truck average fuel economy has decreased significantly. The domestic manufacturers continued to dominate the light truck market. Domestic light trucks comprised 87.0 percent of the total light truck fleet. For MY 1994, the domestic light truck fleet has an average fuel economy 1.6 mpg lower than the imported light truck fleet. The imported light truck fleet fuel economy improved substantially up to MY 1981, but has been declining steadily since then. For MY 1994, the imported light truck fleet fuel economy decreased 0.7 mpg below MY 1993 to 22.0 mpg.

The gap between the average CAFEs of the imported and domestic manufacturers is smaller than in earlier years as domestic manufacturers maintain relatively stable CAFE values while the import manufacturers move to larger, higher performance vehicles and more 4-wheel drive light trucks.

Section III: 1994 Activities

A. Passenger Car CAFE Standards

The following synopsis describes recent litigation challenging NHTSA actions under the CAFE program.

Competitive Enterprise Institute v. NHTSA, D.C. Cir., No. 93–1210

This case challenges NHTSA's January 15, 1993, decision (D.C. Circuit's remand in Case No. 89–1422) to again terminate the rulemaking it commenced to consider amending the MY 1990 passenger car CAFE standard. The petition for review was filed on March 15, 1993. Briefs were filed between February and April 1994, and oral argument was held on May 16, 1994. To date, the Court has not issued a decision.

B. Light Truck CAFE Standards

NHTSA published a final rule establishing the MYs 1996 and 1997 light truck fuel economy standards on April 6, 1994, (59 FR

16312). The agency set a combined standard of 20.7 mpg for MYs 1996 and 1997.

In the final rule for MYs 1996 and 1997 light trucks, the agency determined that GM is the "least capable" manufacturer with a combined fuel economy capability of 20.7 mpg. The agency concluded upon balancing the relevant statutory factors, that the relatively small and uncertain energy savings that would be associated with setting a standard above GM's capability would not justify the economic harm to the company and the economy as a whole. The agency projected that GM could not achieve a combined fuel economy level higher than 20.7 mpg for MYs 1996 and 1997. In contrast, NHTSA concluded that Chrysler and Ford can achieve CAFE levels somewhat above 20.7 mpg.

The agency selected 20.7 mpg for MYs 1996 and 1997 as the final combined standards because these values balance the potentially serious adverse economic consequences associated with market and technological risks for GM to further increase its fuel economy levels. Since GM produces more than 30 percent of all light trucks that are subject to the fuel economy standards, its capability significantly affects the industry's capability and, therefore, the level of the standard.

The agency issued an advance notice of proposed rulemaking for Light Truck Average Fuel Economy Standards for MYs 1998–2006 (59 FR 16324; April 6, 1994). The agency sought information that would help to assess the extent to which manufacturers can improve light truck fuel economy, the benefits and costs to consumers of improved fuel economy, the benefits to the Nation of reducing fuel consumption, and the number of model years that should be covered by the proposal.

C. Low Volume Petitions

Article 49 U.S.C. 32902 (d) provides that a low volume manufacturer of passenger cars may be exempted from the generally

applicable passenger car fuel economy standards if these standards are more stringent than the maximum feasible average fuel economy for that manufacturer and if NHTSA establishes an alternative standard for that manufacturer at its maximum feasible level. A low volume manufacturer is one that manufactured fewer than 10,000 passenger cars worldwide, in the model year for which the exemption is sought (the affected model year) and in the second model year preceding that model year.

The agency acted on two low volume petitions in 1994, which were filed by Bugatti International Holding, SA (Bugatti International) and MedNet, Inc.

Bugatti International filed a joint low volume petition for Bugatti and Lotus high performance vehicles. Bugatti International requested alternative standards for its passenger cars for MYs 1994, 1995 and 1996. Another petitioner, MedNet, Inc., requested an alternative standard for its recently acquired Dutcher PTV vehicles for MYs 1995, 1996, and 1997. NHTSA is reviewing these petitions and will respond in early 1995.

D. Enforcement

Article 49 U.S.C. 23912 (b) imposes a civil penalty for \$5 for each tenth of a mpg by which a manufacturer's CAFE level falls short of the standard, multiplied by the total number of passenger automobiles or light trucks produced by the manufacturer in that model year. Credits that were earned for exceeding the standard in any of the three model years immediately prior to or subsequent to the model years in question can be used to offset the penalty.

With completion by EPA of final CAFE computations for MY 1993 for most passenger car fleets, the agency initiated appropriate enforcement actions for manufacturers that did not meet the CAFE standard.

Table III–1 shows the most recent CAFE fines paid by manufacturers.

TABLE III-1.—CAFE FINES COLLECTED DURING FISCAL YEAR 1994

Model year and manufacturer	Amount fined	Date paid
1991:		
Land Rover	\$520,520	10/93
Sterling	254,840	12/93
Porsche	1,871,470	02/94
Fiat (revised)	416,385	08/94
1992:		
Land Rover	607,620	10/93
Porsche	781,575	02/94
Volvo	5,361,515	04/94
BMW	12,888,750	05/94
Vector	1,740	05/94
Fiat (revised)*	(2,250)	08/94
1993:		
Volvo	5,764,800	06/94
Fiat	194,220	07/94
Panoz	3,080	07/94
Vector	870	07/94

* Fiat was refunded \$2,250 after revised calculation of its CAFE.

E. Partnership for a New Generation of Vehicles (PNGV)

At a White House ceremony on September 29, 1993, President Clinton and Vice President Gore, together with the Chief Executive Officers of Chrysler, Ford, and General Motors, formally announced the Partnership for a New Generation of Vehicles (PNGV). PNGV (previously known as the "Clean Car Initiative") is a historic new partnership between the United States Government and the U.S. Council for Automotive Research (USCAR) which represents Chrysler, Ford, and General Motors. It is aimed at strengthening U.S. competitiveness by developing technologies for a new generation of vehicles.

PNGV focuses its research and development toward attaining three interrelated goals:

- Improve the productivity of the U.S. manufacturing base by significantly

upgrading U.S. manufacturing technology, including the adoption of agile, flexible manufacturing and the reduction of cost and lead time, while reducing the environmental impact and improving quality.

- Pursue advances in vehicles that can lead to improvements in fuel efficiency and emissions of standard vehicle designs, while pursuing safety advances to maintain safety performance. Research will focus on technologies that reduce the demand for energy from the engine and the drive train.

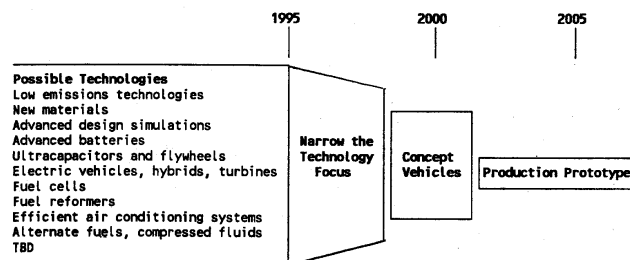
- Within a decade, achieve automotive fuel efficiency improvements up to three times that of the average 1994 Chrysler Concorde/Ford Taurus/Chevrolet Lumina with equivalent performance, size, and utility, and with customer purchase price comparable to today's sedans adjusted for economics, while also meeting all current and future safety and emissions

requirements, and preserving in-use safety compared to the target cars.

The development of energy efficient, low emission vehicles is economically and environmentally critical. From an economic level, the introduction of a new generation of vehicles will preserve American jobs and improve the Nation's competitiveness. From an environmental level, a new generation of fuel efficient vehicles will produce less carbon dioxide (greenhouse gas emissions) and decrease American dependency on imported oil.

The following timetable illustrates probable goals the PNGV expects to achieve within five to ten years. PNGV anticipates a concept vehicle by year 2000 and a prototype vehicle by year 2005.

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NHTSA's PNGV Role

NHTSA's role in the PNGV initiative is to provide technical support to ensure that the selected PNGV vehicles meet existing and anticipated safety standards and to insure in-use safety equivalent to today's mid-size passenger cars. NHTSA will also ensure that the

overall safety of the PNGV vehicles is not compromised.

NHTSA technical support includes:

- Develop advanced computer models of the PNGV platforms and selected vehicles which represent the fleet in order to evaluate the crashworthiness of conceptual designs and their safety compatibility with contemporary vehicles.

- Conduct and evaluate research of light weight materials such as advanced composites and develop new, unique material models for usage in the finite element model work.

- Provide require PNGV transportation infrastructure analyses.

- Provide peer review study of PNGV programs, including conceptual designs.

F. Advisory Committee on Personal Motor Vehicle Greenhouse Gas Reductions

As part of the Administration's "Climate Change Action Plan," the White House formed an advisory committee to develop recommendations to reduce greenhouse gas emissions by light vehicles to the year 1990 level. The committee is comprised of a number of stakeholders, including environmental and public interest groups, automotive manufacturers, fuel suppliers, vehicle users, and representatives of state and local governments.

The goal of the committee is to develop policy options that will cost-effectively reduce greenhouse gas emissions from the use of light vehicles (cars and light trucks) to the 1990 level by years 2005, 2015, and 2025.

Policy options being considered encompass vehicle-miles-traveled (VMT) reductions, efficiency enhancement, and alternative fuels. These policies include:

- Vehicle technologies.
- Fuels with lower carbon content.
- Vehicle-based regulatory strategies such as CAFE.
- Vehicle taxes and/or rebates.
- Market-based actions to reduce VMT (fuel taxes, congestion pricing, and pay-at-the-pump insurance).
- Others approaches (e.g., changed land-use patterns, increased mass transit, telecommuting, Intelligent Vehicle-Highway Systems (IVHS), and increased carpooling).

The advisory group has conducted four meetings: September 28–29, October 19–20, November 14–15, and December 15–16, 1994. This project will run for approximately one year, and it is expected to contribute to a broad-based approach by the Administration to address light vehicle greenhouse gas emissions.

G. General Agreement on Tariffs and Trade (GATT) Decision

On September 30, 1994, a ruling by a panel under the General Agreement on Tariffs and Trade (GATT) upheld key provisions of the United States CAFE law, as well as the "gas guzzler" tax and luxury tax. The panel rejected a challenge under GATT by the European Union (EU) which alleged that the CAFE requirements, the gas guzzler tax, and the luxury tax discriminated against cars manufactured by Mercedes, BMW and other European luxury auto manufacturers. Those manufacturers have paid a large share of penalties and taxes under these laws. The panel agreed with EU complaints on one technical issue—the CAFE accounting

rules that establish separate "domestic" and "import" fleets for determining overall fuel economy. Because these rules do not have any actual economic impact on EU auto manufacturers, and therefore no trade damage results from this requirement, U.S. Trade Representative Michael Kantor stated that the United States does not intend to make any changes in the CAFE rules.

Section IV: Use of Advanced Technology

This section fulfills the statutory requirement of Section 305 of Title III of the Department of Energy Act of 1978 (Pub. L. 95–238), which directs the Secretary of Transportation to submit an annual report to Congress on the use of advanced technologies by the automotive industry to improve motor vehicle fuel economy. This report focuses on the introduction of new models, the application of materials to save weight, and the advances in electronic technology which improved fuel economy in MY 1994.

A. New Models

The domestic automakers introduced and replaced several completely new cars models and, in addition, introduced updates and redesigns of many previous passenger car models. Chrysler introduced the New Yorker and the Chrysler LHS, two all-new luxury sedans, with an average fuel economy of 22 mpg each for MY 1994. Ford redesigned the Mustang, the first major redesign since MY 1979. The car is 4.1 inches longer and 200 pounds heavier than the model it replaced, and already meets some Federal rules of the newly issued emissions and safety standards which are being phased in for future years. Ford also redesigned the Lincoln Continental to include a rounded grille, suspension modifications, and a smaller bumper. The fuel economy of that model has improved 1 mpg for city driving. General Motors (GM) introduced two all-new vehicles, the Cadillac De Ville and the Cadillac De Ville Concours for MY 1994. The De Ville has a 4.9 liter (L) V–8 engine, a new automatic transmission, speed sensitive suspension and steering. The upscale Concours gets the 270-hp 4.6 L double-overhead cam (DOHC) Northstar V–8 engine and the electronically controlled 4T80–E transmission. Both models have an average fuel economy of 21 mpg.

Automobile importers also introduced a variety of new passenger cars and updates of their previous models for MY 1994. The BMW 325i convertible is powered by a 2.5 L DOHC I–6 engine and a 5-speed manual transmission and

has improved its average fuel economy over last year's model by 3 mpg. The 5-series has three new models for MY 1994, the 530i sedan, Touring wagon and 540i sedan, all powered with a V–8 engine. The average fuel economy of the 530i and the 540i is 19.5 mpg and the Touring wagon is 21.5 mpg. The 535i model has been discontinued. BMW also has an all-new 840Ci model with a 4.0 L 32-valve all aluminum V–8 engine with average fuel economy of 19.5 mpg and a 850CSi model with a 5.6 L 292-horsepower (hp) V–12 engine with an average fuel economy of 16 mpg.

Honda completely redesigned the Accord with a 2.2L SOHC I–4 engine. The fuel economy has improved by 0.5 mpg over its MY 1993 counterpart. Honda's Acura division completely redesigned the Integra to include a 1.8L 142 hp DOHC I–4 engine on the RS and LS model and a 1.8 L 170 hp VTEC variable-valve-timing I–4 engine on the GS–R model. Acura also has a new top-of-the-line Legend sedan with a 230 hp single overhead cam (SOHC) V–6 engine and a six-speed manual transmission.

Kia Motor Corporation introduced its first U.S.-vehicle entries under the Kia badge. Kia has three compact models, front-wheel-drive 4-door sedans powered by a 1.6 L 88 hp SOHC I–4 engine with an average fuel economy of 30 mpg.

Mercedes-Benz introduced its new C-class sedan to the line, powered by a 2.2 L I–4 engine with an average fuel economy of 25 mpg. The C280 model has a new 2.8 L I–6 engine with an average fuel economy of 23 mpg.

Saab has two all-new hatchback 900 series models with a larger 4-cylinder engine and an optional V–6 engine for the first time. The Saab 900 moved from the EPA compact size class to the midsize class for MY 1994. The average fuel economy of this model is 21.5 mpg for MY 1994.

Toyota introduced a new 2-door Camry with a 3.0 L aluminum V–6 engine with a 4-speed electronic controlled automatic transmission and an average fuel economy of 21 mpg. Also Toyota has introduced a new liftback Celicia model with an all-new 110 hp 1.8 L engine and an average fuel economy of 30.5 mpg for MY 1994.

Volvo introduce an all front-wheel drive 850 wagon in both touring and turbo versions with a 2.4 L engine and a average fuel economy of 24 mpg. This model replaced the 240 wagon which also had a fuel economy of 24 mpg.

In the domestic light truck area, Chrysler introduced the full-sized T300 Ram pickup replacing a model which had been in production since MY 1972.

The new model averages 16.8 mpg, the same as its predecessor despite being substantially larger and heavier. GM's GMC division completely redesigned the Sonoma's exterior and interior with a 2.2L I-4 engine and a 5-speed manual transmission. The Sonoma average fuel economy is 25.5 mpg an improvement of 0.5 mpg over MY 1993 light truck. GM also redesigned the companion Chevrolet S-10 pickup.

B. Engine and Transmission Technology

Some manufacturers made significant improvements in engine technology for model year 1994. GM has a new pushrod engine, which bears a close resemblance to familiar engines. The base Chevy Caprice gets a 4.3 L V-8 variant of the LT1 V-8 to replace the 5.0 L V-8. The 4.3 L engine produces 200 hp at 5200 revolutions per minute (rpm) (30 hp more than last year's 5.0 L) and 245-pound-feet of torque at 2400 rpm.

Ford introduced a more powerful engine controller called EEC-V on the MY 1994 Thunderbird, Cougar, and Mustang. Compared with EEC-IV, the new unit operates 20 percent faster and has 66 percent more memory. Developed in part through Ford's Formula 1 racing program, EEC-V features a "Flash Erasable Electrically Programmable Read Only Memory" chip (Flash-EEPROM) that allows service technicians to reprogram the computer, rather than replace it, when defects arise or upgrades becomes available.

Still in development at Ford is a new two-stroke gasoline engine. A major obstacle to two-stroke engine development in the United States is the Tier II emissions requirement of 0.2 grams per mile nitrogen oxide (NO_x) which is, at best, marginally achievable with current lean-system two-stroke technology. According to *Ward's Automotive Yearbook 1994*, GM's two-stroke development program is winding down. GM preferred to proceed with development of its simpler dry-sump, roller-bearing version but reportedly was experiencing piston cooling and cylinder-bore distortion problems. Ford and Chrysler are moving ahead with two-stroke programs. Ford is field testing a two-stroke hybrid vehicle in Europe, and press reports indicate that Chrysler expects to show what it believes is a marketable wet-sump, externally scavenged engine some time in the near future.

C. Electronics

Applications of electronic components in vehicles continue to rise. Some of the applications include four-

wheel steering, tire-pressure sensing, instrumentation, and in-car entertainment grouping. However, the main concentration is in engine management, powertrain management, antilock braking systems, air bags, air conditioning, and, increasingly, suspension control.

Electronic controllers are gradually being incorporated in all modern automatic transmissions, and this year Ford's 4R70W four-speed automatic truck transmission and GM's 4L60-E rear-drive four-speed automatic, both have electronic controls. The GM unit features a performance mode that provides quicker shifts and higher shift point speeds. In a quest for consistent shift quality, the controller alters shifting strategies at high altitudes, as components wear, and as temperatures rise.

D. Materials

For MY 1994, automakers chose aluminum, high strength steel, powder metal (P/M), and magnesium for a number of significant new component applications in their cars, and light trucks. The reduced weight of these components contributes to improved fuel economy of the models using them.

Aluminum usage has increased by five-eight pounds (lbs.) annually per vehicle since 1990 in North America, as reported in *Ward's Automotive Yearbook 1994*. Since 1990, the annual increase of plastic usage has been cut in half every year and is likely to increase only 0.5 lbs. per vehicle during MY 1994.

Even as the use of plastics and aluminum has grown, steel continues as the primary material in U.S.-built vehicles, comprising well over 50 percent of the weight of the average passenger car according to *Ward's 1994 Automotive Yearbook*. The amount of steel used in vehicles continues to grow, due mainly to redesigned vehicles that are longer, wider and/or taller than those they replaced. These models include the redesigned compact GMC Sonoma and Chevrolet S-10 pickup trucks, Cadillac's new Sedan De Ville and De Ville Concours, Chrysler's Dodge Ram pickup, and Ford's Mustang. The new Sonoma/S10 grew 10.6 inches and added 262 lbs. in MY 1994 over MY 1993. The long-box version of the truck gained 384 lbs. from the previous year. Ford added 200 lbs. to the Mustang, and Chrysler's new Dodge Ram full-size pickup has added 226 lbs.

New safety features added to vehicles also increase the amount of steel usage in today's vehicles. It is the material used for most door intrusion beams, roof structures and undercarriage

reinforcements designed to protect occupants in crashes, rollovers and side impacts. The light-truck market has particularly shown an increase in steel usage as regulations and consumer demands force light truck manufacturers to incorporate the same safety features as cars. The GMC Jimmy, for instance, adds new side-door steel guard beams running the full length of the door. Steel intrusion beams also are standard in MY 1994 Ford's F-series pickups.

Other new applications include composite steel camshafts in GM's 3.1 L V-6s and 2.2 L 4-cylinder engines, and steel tubing on the Dodge Ram's radiator enclosure panels. Also the use of medium-strength steels, mostly bake-hardenable varieties, increased in MY 1994.

P/M makes up about 27 lbs. of weight of a typical family vehicle accordingly to *Ward's Automotive Yearbook 1994*. It continues to play an increasingly significant role because it can be used to make strong and lightweight parts that have very complex shapes. Applications for P/M have been growing steadily in recent years, and several new and expanded applications were introduced in MY 1994, including P/M bearing caps on GM's 3100 and 3800 series V-6 engines and P/M inserts in the bearing cap girdles for Ford's new aluminum 2.5 L and 3 L V-6 engines.

Magnesium use has risen every year since 1988 by 10 to 16 percent. Magnesium firsts in MY 1994 included knee-bolster retainers, steering wheel armatures, and seat pedestals, or stanchions. The knee-bolster retainers, the first large structural magnesium component application in the U.S. auto industry, debuted on several of GM's standard-size, front-drive cars, including the Buick Park Avenue. Ford replaced steel wheel armature subassemblies with magnesium on its Thunderbird, Cougar, Taurus, and Sable.

E. Summary

The stabilization of oil prices and supply has been a factor resulting in a shift of consumer demand in recent years to more powerful and roomier passenger cars and light trucks. The auto industry, responding to this shift, has increased the horsepower of its engines and shifted its production mix to somewhat larger cars. Still, there were some considerable technical gains, particularly in lightweight material usage, that contributed to improvements in fuel economy on some models in MY 1994.

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